

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Per Olof Magnus
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Application No. 10/597,960 § Examiner: Chacko, Joe
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§
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For: Address Management In Mobile IP Environments

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APPEAL UNDER 35 U.S.C. §134

This Brief is submitted in connection with the decision of the Primary Examiner set forth in Final Official Action dated March 26, 2010, finally rejecting claims 1-5, 7-13, and 15-16, which are all of the pending claims in this application.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §41.20(b)(2) that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1379.

Real Party in Interest

The real party in interest, by assignment, is: Telefonaktiebolaget LM Ericsson (publ)
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Related Appeals and Interferences

None.

Status of Claims

Claims 1-5, 7-13, and 15-16 are pending in the present application, each of which are finally rejected and form the basis for this Appeal. Claims 1-5, 7-13, and 15-16, stand rejected, under 35 U.S.C. 103(a), as being unpatentable over Koskiahde (WO 03/047183 A1) in view of Veerepalli et al (US Patent Publication Number 2003/0153325 A1, hereinafter "Veerepalli") in further view of Sharma et al (US Patent Number 6,766,165 B2, hereinafter "Sharma"). Claims 1-5, 7-13, and 15-16, including all amendments to the claims, are attached in the Claims Appendix. The rejection of claims 1-5, 7-13, and 15-16 is appealed.

Status of Amendments

The claims set out in the Claims Appendix include all entered amendments. No amendment has been filed subsequent to the final rejection.

Summary of Claimed Subject Matter

Claim Element	Specification Reference
1. A data unit processing entity in a data unit transmission network, said data unit transmission network associated with a plurality of network nodes, said plurality of network nodes including routing nodes and end nodes, said routing nodes being arranged to route data units over said data unit transmission network in accordance with a routing protocol, one or more of said end nodes being mobile nodes capable of accessing said data unit transmission network over more than one link, said network nodes being arranged to distinguish between a first type routing address and a second type routing address in said data units, said first type	Throughout the Specification, including: page 8, line 19 – page 9, line 29

routing address serving to identify network nodes and said second type routing address serving to allow routing to mobile nodes, said data unit processing entity comprising:	
a decision data memory storing decision data for associating one or more second type routing addresses for a particular first type routing address;	Throughout the Specification, including: page 10, lines 11-15
a decision part for receiving a data unit that is to be forwarded and for setting a second type routing address in said received data unit that is to be forwarded, an operation of said decision part depending on a first type routing address set in said received data unit that is to be forwarded and on said decision data stored in association with said first type routing address in said decision data memory;	Throughout the Specification, including: page 10, lines 14-22
a network control function entity for updating said decision data memory;	Throughout the Specification, including: page 10, lines 28-32
a management part further comprising:	Throughout the Specification, including: page 10, line 24
a first interface to said decision data memory for modifying said decision data,	Throughout the Specification, including: page 10, line 24-25
a second interface to one of said mobile nodes for allowing said mobile node to modify said decision data over said first interface, and	Throughout the Specification, including: page 10, 26-28
a third interface to said network control function entity allowing said network control function entity access to said decision data memory for modifying said decision data and where said second interface and said third interface are two independent and separate interfaces to said management part.	Throughout the Specification, including: page 12, lines 31-35

Claim Element	Specification Reference
9. A method of controlling a data unit processing entity in a data unit transmission network, said data unit transmission network associated with a plurality of network nodes, said network nodes including routing nodes and end nodes, said routing nodes being arranged to route data units over said data unit transmission network in accordance with a routing protocol, one or more said end nodes	Throughout the Specification, including: page 8, line 19 – page 9, line 29

being mobile nodes capable of accessing said data unit transmission network over more than one link, said network nodes being arranged to distinguish between a first type routing address and a second type routing address in said data units, said first type routing address service to identify network nodes and said second type routing address serving to allow routing to mobile nodes, said method comprising the steps of:	
storing decision data for associating one or more second type routing addresses for a particular first type routing address;	Throughout the Specification, including: page 10, lines 11-15
utilizing a decision procedure setting the second type routing address in a received data unit that is to be forwarded, depending on the first type routing address set in said received data unit that is to be forwarded and on said decision data stored in association with said first type routing address in said decision data memory	Throughout the Specification, including: page 10, lines 14-22
utilizing a management procedure for said decision data memory, where said management procedure provides a first interface to said decision data memory for modifying said decision data, a second interface to one of said mobile nodes for allowing said mobile node to modify said decision data over said first interface and a third interface to network control function entity allowing said network control function entity access to said decision data memory for modifying said decision data and wherein said second interface and said third interface are two independent and separate interfaces to said management procedure.	Throughout the Specification, including: page 10, line 24-25, 26-28, and 31-35

The specification references listed above are provided solely to comply with the USPTO's current regulations regarding appeal briefs. The use of such references should not be interpreted to limit the scope of the claims to such references, nor to limit the scope of the claimed invention in any manner.

Grounds of Rejection to be Reviewed on Appeal

The rejection of Claims 1-5, 7-13, and 15-16 under 35 U.S.C. 103(a) as being unpatentable over Koskiahde, in view of Veerepalli, and further in view of Sharma is to be reviewed on appeal.

Argument

The rejection of Claims 1-5, 7-13, and 15-16 under 35 U.S.C. 103(a) as being unpatentable over Koskiahde, Veerepalli, and Sharma should be overturned.

Claims 1-5, 7-13, and 15-16 are pending in the application and are rejected under 35 U.S.C. 103(a) as being unpatentable over Koskiahde, Veerepalli, and Sharma. In showing that the rejections of the Final Office Action (dated March 26, 2010) are in clear error, Appellant does not concede that the cited references are prior art and reserves the right, for example, in a continuing application, to establish that the cited references or other references cited now or hereafter, do not qualify as prior art as to an invention embodiment previously, currently, subsequently claimed.

Appellant respectfully submits that the rejections of the Final Office Action are in clear error because the cited passages of Koskiahde, Veerepalli, and Sharma, taken alone or in any permissible combination, fail to disclose, teach, or even suggest the limitations of the independent claims because the references, taken alone or in any permissible combination fail to disclose, teach, or suggest the elements of the independent claims.

Koskiahde, Veerepalli, and Sharma, taken alone or in any permissible combination, fail to disclose, teach, or suggest the elements of the independent claims.

For example, the cited combination of references, completely fails to disclose, teach, or even suggest "a first interface to said decision data memory for modifying said decision data" and "a second interface to one of said mobile nodes for allowing said mobile node to modify said decision data over said first interface," as recited in

independent Claim 1. Substantially similar elements are recited in independent Claim 9. As support for rejecting the “first interface” element, the Examiner cites paragraph [0058] of Veerepalli. As support for rejection the “second interface” element, the Examiner cites col. 10, lines 38-42 of Sharma.

Paragraph [0058] of Veerepalli discusses:

FIG. 4 illustrates a flow diagram when a foreign agent (FA) 108 advertises to a visiting mobile node (MN) 1032 and receives a registration request message. The horizontal axis represents the topology of the system, i.e., infrastructure elements. The vertical axis represents the time line. At time t1, the foreign agent (FA) 108 sends an agent advertisement message. The mobile node (MN) 102 receives the agent advertisement and determines whether the mobile node 102 is on its home network 114 or on a foreign network 112. In the example shown by FIG. 4, the mobile node 102 determines that it is on a foreign network 112. In addition, the mobile node 102 may obtain a care-of address from the agent advertisement message. The care-of address is typically the IP address of the foreign agent 108. The mobile node 102 then registers the new care-of address with its home agent (HA) 104. The mobile node 102 may register the new care-of address with its home agent 104 by sending a registration request message to the foreign agent 108 at time t2. The foreign agent 108 then forwards the registration request message to the home agent at time t3.

In citing this passage of Veerepalli, it appears that the Examiner is attempting to analogize the Veerepalli’s registration of a new care-of address to the claimed “modifying said decision data” and Veerepalli’s connection between the mobile node and the foreign agent or the home agent to the claimed “first interface” (points which Appellant does not concede).

Col. 10, lines 38-42 of Sharma discusses:

The mobile wireless capable devices 380, 382 can communicate with the central NMS 314 and are in this instance preferably provided with management capability over assets on the enterprise 102 network.

In citing this passage of Sharma, it appears that the Examiner is attempting to analogize Sharma’s communication between the “central NMS” and the “mobile wireless capable devices” to the claimed “second interface.” However, nothing in Koskiahde, Veerepalli, and Sharma, taken alone or in any permissible combination, discloses, teaches, or even

fairly suggests that the connection (analogized to the claimed "second interface") between the mobile wireless devices and the central NMS of Sharma enables modification of anything, much less "decision data" as claimed, over any other sort of interface, much less "over the said first interface," as claimed in independent Claim 1.

In fact, a person skilled in the art would not even expect Koskiahde, Veerepalli, and Sharma to disclose, teach, or suggest the claimed "first interface" and "second interface to one of said mobile nodes for allowing said mobile node to modify said decision data over said first interface" because there is simply no logical connection that can be made between the Veerepalli's mobile node/foreign agent/home agent communication and Sharma's communication between the central NMS and the mobile wireless devices. There is no disclosure, teaching, or suggestion that the communication between Sharma's central NMS and the mobile wireless devices can be transported another, separate interface. Thus, Koskiahde, Veerepalli, and Sharma, taken alone or in any permissible combination, fail to disclose, teach, or even suggest "a first interface to said decision data memory for modifying said decision data" and "a second interface to one of said mobile nodes for allowing said mobile node to modify said decision data over said first interface," as recited in independent Claim 1.

Independent claims 1 and 9, and all claims dependent therefrom are patentable over Koskiahde, Veerepalli, and Sharma, taken alone or in any permissible combination. Therefore, the rejection is in clear error and should be reversed.

CONCLUSION

The claims currently pending in the application are patentable over Koskiahde, Veerepalli, and Sharma, and the Applicants request that the Examiner's rejection thereof be reversed and the application be remanded for further prosecution.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Previously Presented) A data unit processing entity in a data unit transmission network, said data unit transmission network associated with a plurality of network nodes, said plurality of network nodes including routing nodes and end nodes, said routing nodes being arranged to route data units over said data unit transmission network in accordance with a routing protocol, one or more of said end nodes being mobile nodes capable of accessing said data unit transmission network over more than one link, said network nodes being arranged to distinguish between a first type routing address and a second type routing address in said data units, said first type routing address serving to identify network nodes and said second type routing address serving to allow routing to mobile nodes,

 said data unit processing entity comprising:

 a decision data memory storing decision data for associating one or more second type routing addresses for a particular first type routing address;

 a decision part for receiving a data unit that is to be forwarded and for setting a second type routing address in said received data unit that is to be forwarded, an operation of said decision part depending on a first type routing address set in said received data unit that is to be forwarded and on said decision data stored in association with said first type routing address in said decision data memory;

 a network control function entity for updating said decision data memory;

 a management part further comprising:

 a first interface to said decision data memory for modifying said decision data,

 a second interface to one of said mobile nodes for allowing said mobile node to modify said decision data over said first interface, and

 a third interface to said network control function entity allowing said network control function entity access to said decision data memory for modifying said decision data and wherein said second interface and said third interface are two independent and separate interfaces to said management part.

2. (Previously Presented) The data unit processing entity of claim 1, wherein said decision data comprises decision rules and decision parameters, wherein said interface is arranged for modifying said decision rules and decision parameters.
3. (Previously Presented) The data unit processing entity of claim 1, wherein said decision part is arranged to dynamically select one of said second type routing addresses from said decision data.
4. (Previously Presented) The data unit processing entity of claim 3, wherein said decision part is arranged to perform said dynamic selection for each data unit to be forwarded.
5. (Previously Presented) The data unit processing entity of claim 1, wherein said third interface is arranged to provide a plurality of network control function entities with access to said decision data memory.
6. (Cancelled)
7. (Previously Presented) The data unit processing entity of claim 5, wherein one or more of said network control function entities are network resource management functions.
8. (Previously Presented) The data unit processing entity of claim 1, wherein said network control function entity is arranged to determine parameters related to access links over which said mobile nodes access said data unit transmission network, and to modify said decision data in dependence on said parameters related to access links.
9. (Previously Presented) A method of controlling a data unit processing entity in a data unit transmission network, said data unit transmission network associated with a plurality of network nodes, said network nodes including routing nodes and end

nodes, said routing nodes being arranged to route data units over said data unit transmission network in accordance with a routing protocol, one or more said end nodes being mobile nodes capable of accessing said data unit transmission network over more than one link, said network nodes being arranged to distinguish between a first type routing address and a second type routing address in said data units, said first type routing address serving to identify network nodes and said second type routing address serving to allow routing to mobile nodes, said method comprising the steps of:

storing decision data for associating one or more second type routing addresses for a particular first type routing address;

utilizing a decision procedure setting the second type routing address in a received data unit that is to be forwarded, depending on the first type routing address set in said received data unit that is to be forwarded and on said decision data stored in association with said first type routing address in said decision data memory

utilizing a management procedure for said decision data memory, where said management procedure provides a first interface to said decision data memory for modifying said decision data, a second interface to one of said mobile nodes for allowing said mobile node to modify said decision data over said first interface and a third interface to a network control function entity allowing said network control function entity access to said decision data memory for modifying said decision data and wherein said second interface and said third interface are two independent and separate interfaces to said management procedure.

10. (Previously Presented) The method of claim 9, wherein said decision data comprises one or more decision rules and one or more decision parameters, and said interface is arranged for modifying said decision rules and decision parameters.

11. (Previously Presented) The method of claim 9, further comprising dynamically selecting one of said second type routing addresses from said decision data.

12. (Previously Presented) The method of claim 11, further comprising performing said dynamic selection for each data unit to be forwarded.

13. (Previously Presented) The method of claim 9, wherein said third interface provides a plurality of network control function entities with access to said decision data memory.

14. (Cancelled)

15. (Previously Presented) The method of claim 13, wherein one or more of said network control function entities are network resource management functions.

16. (Previously Presented) The method of claim 13, said network control function entity determining parameters related to access links over which said mobile nodes access said data unit transmission network, and modifies said decision data in dependence on said parameters related to access links.

* * *

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.